

IN THE SPECIFICATION:

Please amend the paragraph on page 30, lines 13-20, as provided in the following paragraph:

~~Accurate delivery of a filter to its intended location (a non-diseased vessel area)~~ is a particularly important concern in tortuous anatomy where there is a limited area of non-diseased vessel. The accuracy of deployment is related to the build up of potential ~~stain~~ strain energy in delivery catheter systems. This strain energy is primarily a combination of strain energy produced in the outer and inner shaft during the deployment action. The designs described below referring in particular to Figs. 4A and 12A detail a novel solution to these problems.

Please amend the paragraph on page 30, line 23, to page 31, line 12, as provided in the following paragraph:

During the deployment action the outer shaft ~~or of~~ of delivery catheter 2 is subjected to high levels of tensile strain. The design/construction of the outer shaft 2 is such that the amount of strain energy that can be stored within the outer shaft is ~~minimised~~ minimized. Low flexural stiffness is also desirable in catheter design to ensure good catheter flexibility, trackability and low insertion forces. These attributes are achieved by incorporating high tensile elements 21 within the wall construction of the outer shaft 2. These high tensile elements ~~2~~ 21 can be high tensile longitudinal steel wires as shown in the example below or they may be flexible high tensile wires or fibers, carbon fibers and or kevlar fibers. These fibers/wires are contained within the wall 22 of the catheter which may be a polymeric material (detailed in Fig. 4A is a polyimide wall). These wires/fibers provide the outer shaft with high tensile modulus (minimal stretch) which results in a shaft that can not store much strain energy. The inclusion of the

above high tensile elements 21 allows for a low profile outer shaft 2. This low wall thickness outer catheter shaft therefore also has low flexural stiffness, good flexibility, trackability and subsequently low insertion force. The inner surface 23 of the lumen of this shaft 2 is a low friction (PTFE) material to ~~minimise~~ minimize the friction strain energy incurred during the deployment action.

Please amend the paragraph on page 35, lines 22-26, as provided in the following paragraph:

Two gold marker bands 59, 60 are provided mounted to the sleeve 43. One marker band 59 is fixedly attached to the olive 51 and one marker band 60 is fixedly attached to the proximal end 45 of the frame 42. The marker bands 59, 60 assist in ~~visualisation~~ visualization of the filter element 40 during an interventional procedure.

Please amend the paragraph on page 36, lines 1-4, as provided in the following paragraph:

A transition element 61 is fixedly mounted to the proximal end 46 of the sleeve 43, in this case by means of an adhesive bond. The transition element 61 is sized to fit ~~made-with~~ the lumen of the delivery catheter 2 to provide a smooth stiffness transition and prevent kinking.

Please amend the paragraph on page 43, lines 1-3, as provided in the following paragraph:

The filter element 40 is loaded into the pod 13 of the delivery catheter 2 by a simple, single-direction pushing action. This ~~minimises~~ minimizes potential loading difficulties.

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Please amend the paragraph on page 48, lines 4-11, as provided in the following paragraph:

After completion of an interventional procedure, for example a treatment of the stenosed region 111, the retrieval catheter 3 is flushed, for example with a saline solution, using the syringe 91. In this case, the retrieval catheter 3 comprises an elongate tubular ~~centring~~ centering catheter 121. The ~~centring~~ centering catheter 121 has a tapered distal tip 122 which protrudes distally of a distal end 120 of the retrieval catheter 3 during advancement through the vasculature 110, as illustrated in FIG. 44, to prevent snagging of the retrieval catheter 3 on the stent 113, and to minimise vessel trauma.

Please amend the paragraph on page 48, lines 13-20, as provided in the following paragraph:

The retrieval catheter 3 is inserted into the vascular system and advanced over the bare guidewire 99 until the distal end 120 of the retrieval catheter 3 is distal of the stent 113 (FIG. 44). The retrieval catheter 3 is then further advanced distally over the guidewire 99 while maintaining the position of the ~~centring~~ centering catheter 121 until the distal end 120 of the retrieval catheter 3 is immediately proximal of the deployed filter element 40. The guidewire 99 is retracted to engage the distal stop 101 with the distal end 49 of the sleeve 43 of the filter element 40.

Please amend the paragraph on page 50, lines 5-8, as provided in the following paragraph:

The retrieval filter element 40 is then withdrawn from the vasculature 110 by withdrawing the retrieval catheter 3 and the ~~centring~~ centering catheter 121 together from the vasculature 110.

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Please amend the paragraph on page 50, lines 9-14, as provided in the following paragraph:

The guidewire 99 may be left in place in the vasculature 110 after the retrieval catheter 3, the ~~centring~~ centering catheter 121, and the retrieval filter element 40 have been withdrawn from the vasculature 110, as illustrated in FIG. 47. Alternatively the guidewire 1 may be withdrawn from the vasculature 110 upon withdrawal of the retrieval catheter 3, the ~~centring~~ centering catheter 121, and the retrieval filter element 40.

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